

# Washington County, Florida Nontechnical Soil Descriptions



Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units. These descriptions are written in terminology that nontechnical users of soil survey information can understand and are used to create reports. By linking the description to the soil survey map units these reports can be generated by conservation planners and other NRCS employees for distribution to land users. These descriptions are available through both TOOLKIT and NASIS.

In this subsection nontechnical descriptions are available through four categories they are Agronomic, Ecological Community, Urban, and Water Quality. Separate map unit to description links are provided for each category.

## AGRONOMIC

The following agronomic categories are available below.

### Category

aSOI - Soil Characteristics  
bSAC - Soil Agronomic Characteristics  
cH2O - Seasonal High Water Table  
dCUL - Cultivation Limitations  
eERO - Erosion Control  
fIRR - Irrigation Needs  
hPAS - Pasture and Hayland  
iWMG - Water Table Management

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
Al	3s22(Bigbee)	5w6		5w6
AnA	2w3			
AnB	3e3			
AnC	4e4			
Ba		6w3		6w3
Bd	4w4	6w3		6w3

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
BfB	3s3			
BnB	3s3			
BnC	4s3			
Bp	8e1			
BoA	1o2			
BoB	2e2			
BoB2	3e9			
BoC	3e2			
BoC2	4e9			
BwB	2s2			
BwC	3s2			
CaB	2e2			
CaB2	3e9			
CaC2	4e9			
CtB3	3e24			
CtC3	4e6			
CuB	2e3			
CuB2	3e9			
CuC	3e21			
CuC2	4e6			
CwD3	6e3(Nankin) 6s21(Troup)	4w26		4w26
DuB	2e4			
EaB	2e4			
EfA	2w2			
EfB	2e4			
EnA	2s2			
EnB	2s2			
EsB	3s20			
EsC	4s20			
EsD	6s21			
EsE	7s9			
EtB	3s20			
EtC	4s20			
EuB	2s1			
EuC	3s1			
FaB	2e1			
FaB2	3e20			
FaC2	4e7			
GcA	2s2			
GcB	2s2			
GcC	3s2			
GdA	2w1			

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
GdB	3e4			
GdC	3e2			
Gr	3w4	5w4		5w4
Gu	8e1			
KaB	2s3			
KgB	2s3			
KgC	4s21			
KsB	2s3			
KsC	4s3			
LaB	3s4(Bonifay) 4s7(Lakeland)			
LaC	4s4(Bonifay) 6s2(Lakeland)			
LaD	6s1(Bonifay) 6s2(Lakeland)			
LaF	7s6(Lakeland) 7s9(Troup)			
LdB	4s7(Lakeland)			
LdB	3s4(Bonifay)			
LdC	6s2(Lakeland)			
LdC	4s4(Bonifay)			
LkB	3s4			
LkC	4s4			
LnD	4e3(Nankin) 6s21(Troup)			
LnF	7e1(Nankin) 7s9(Troup)			
Lo	4w5	4w24		
Lu	2w6			
LyA	2w5	3w23		
LyB	2e4			
LzA	2w4			
LzB	2s2			
MaB	2e2			
MaB2	3e9			
NoA	1o2			
NoB	2e2			
NoB2	3e9			
NoC	3e2			
NoC2	4e9			
NrA	2s2			
NrB	2s2			
NrC	3s2			

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
OkB	3e3			
OkC	3e21			
Pm	4w7	4w26		4w26
Pr	4w4(Rains)	4w23(Rains) 6w3(Pocomoke)		6w3
Pt	4w4(Rains)	4w23(Rains) 6w3(Pocomoke)		6w3
Ra	4w4	4w23		
RcB	2e1			
RdB	2s1			
RdC	3s1			
RsB	2e1			
RsB2	3e20			
RsC	3e1			
RsC2	4e7			
Ru		6w3		
Sc	3s5			
Sf	2w4	3w23		
ShB	2e3			
ShB2	3e24			
ShC	3e21			
ShC2	4e6			
Sw		5w6(Pelham) 6w4(Rutlege) 7w2(Pamlico)		5w6 6w4
TfB	2e2			
TfB2	3e9			
TfC2	4e9			

Map Units without an LCU listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

## ECOLOGICAL COMMUNITY

The following categories are available below.

kRNG - Rangeland (not developed, no significant application in the area served by this field office.)

IWLD - Wildlife Suitability

mWOD - Woodland Suitability

EC 4 (Longleaf Pine-Turkey Oak Hills) - Map Units: CwD3\*, EsB, EsC, EsD, EsE, EtB, EtC, LaB, LaC, LaD, LaF, LdB, LdC, LkB, LkC

EC 5 (Mixed Hardwood and Pines) - Map Units: AnA, AnB, AnC, BfB, BnB, BnC, BoA, BoB, BoB2, BoC, BoC2, BwB, BwC, CaB, CaB2, CaC2, CtB3, CtC3, CuB, CuB2, CuC, CuC2, CwD3\*, DuB, EaB, EfA, EfB, EnA, EnB, EuB, EuC, FaB, FaB2, FaC2, GcA, GcB, GcC, GdA, GdB, GdC, KaB, Kgb, KgC, KsB, KsC, LnD, LnF, Lu, LyA, LyB, LzA, LzB, MaB, MaB2, NoA, NoB, NoB2, NoC, NoC2, NrA, NrB, NrC, OkB, OkC, RcB, RdB, RdC, RsB, RsB2, RsC, RsC2, Sc, Sf, ShB, ShB2, ShC, ShC2, TfB, TfB2, Tfc2

EC 7 (North Florida Flatwoods) - Map Units: Bd, Lo, Pm\*

EC 17 (Cypress Swamp) - Map Units: Ba\*, Gr\*

EC 20 (Bottomland Hardwoods) - Map Units: Al, Pm\*

EC 21 (Swamp Hardwoods) - Map Units: Ba\*, Gr\*, Pr, Pt, Ra, Ru\*, Sw\*

EC 22 (Shrub Bogs - Bay Swamps) - Map Units: Ru\*, Sw\*

\* - These Map Units have more than one type of Ecological Community.

Map Units without an Ecological Community listed are not suited to these uses or suitability is so variable that it must be determined on-site.

## URBAN USES

The following additional nontechnical descriptions are available for urban interpretations:

oURB - Urban Use Statement

A101 - Map Units - Al, Ba, Gr, Lu, Pr, Pt, Ru, Sw

A102 - Map Units - Bd, KaB, KgB, KsB, Lo, LyA, LzA, Pm, Ra, Sf

A103 - Map Units - AnA, AnB, AnC, DuB, EaB, EfA, EfB, OkB, OkC

A104 - Map Units - BoA, BoB, BoB2, BoC, BoC2, CaB, CaB2, CaC2, GdA,  
GdB, GdC, LyB, MaB, MaB2, NoA, NoB, NoB2, NoC,  
NoC2, Sc, TfB, TfB2, Tfc2

A105 - Map Units - BfB, BnB, BnC, BwB, BwC, CtB3, CtC3, CuB, CuB2, CuC,  
CuC2, EnA, EnB, EsB, EsC, EtB, EtC, EuB, EuC, FaB, FaB2,  
FaC2, GcA, GcB, GcC, KgC, KsC, LaB, LaC, LdC, LkB, LkC,  
LzB, NrA, NrB, NrC, RcB, RdB, RdC, RsB, RsB2, RsC, RsC2,  
ShB, ShB2, ShC, ShC2

A106 - Map Units - EsE, Gu, LaF, LnF

A107 - Map Units - CwD3, EsD, LaD, LnD

Map units without a link listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

## **WATER QUALITY**

The last group of nontechnical description in this subsection of this FOTG is that group dealing with water quality, specifically pesticide and nutrient management. The link between the statements and the map units is listed below.

sWQ - Water Quality Statement

tPES - Pesticide Management Statement

uNUT - Nutrient Management Statement

01 - Map Units - BwB, BwC, NrA, NrB, NrC

02 - Map Units - A1 (Bigbee part), BfB, BnB, BnC, CwD3 (Troup part), EnA, EnB, EsB, EsC, EsD, EsE, EtB, EtC, EuB, EuC, GcA, GcB, GcC, KgC, KsC, LaB, LaC, LaD, LdB, LdC, LkB, LkC, LnD (Troup part), LzB, RdB, RdC

03 - Map Units - A1, Bp, FaB, FaB2, FaC2, GdA, GdB, GdC, Gu, KaB, KGB, KsB, LaF, LnF (Troup part), Lo, Lu, LyA, LyB, LzA, MaB2, Pm, Pr, Pt, Ra, RcB, RsB, RsB2, RsC, RsC2, Ru, Sc, Sf, Sw (Rutlege and Pelham parts)

04 - Map Units - AnA, AnB, AnC, Ba, Bd, BoA, BoB, BoB2, BoC, BoC2, CaB, CaB2, CaC2, CtB3, CtC3, CuB, CuB2, CuC, CuC2, CwD3 (Nankin part), DuB, EaB, EfA, EfB, Gr, LnD (Nankin part), LnF (Nankin part), MaB, NoA, NoB, NoB2, NoC, NoC2, OkB, OkC, ShB, ShB2, ShC, ShC2, Sw (Pamlico part), TfB, TfB2, TfC2

## **Nontechnical Soil Descriptions**

### **1o2 Map Units BoA, NoA**

"aSOI", "1o2", "This map unit consists of nearly level, well drained soils on uplands. They have sandy surface layers less than 20 inches thick, and moderately slowly permeable loamy subsoil layers. These soils are prime farmland."

"bSAC", "1o2", "The root zone is restricted by a compact subsoil and by slight wetness in wet seasons. These soils have moderate natural fertility and crops respond well to fertilization. The available water capacity averages moderate to high in the root zone. Rainfall is readily absorbed and retained by the soils. Runoff during rains is slow and the hazard of erosion is slight."

"cH2O", "1o2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "1o2", "These soils have few limitations for growing cultivated crops. The variety of cultivated crops is somewhat limited by wetness. Such crops as corn, soybeans, and peanuts grow well without special conservation practices. Practices such as good seedbed preparation, nutrient management, and crop rotations are all that are needed to keep the soil in good condition. Cover crops should be alternated with row crops. All crop residues should be returned to the soil."

"eERO", "1o2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "1o2", "Crops produced on these soils are not normally irrigated."

"hPAS", "1o2", "These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and improved bahiagrasses are well adapted. Clovers and other legumes are also adapted. Grasses and clovers grow well where they are properly managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover."

"iWMG", "1o2", "Water table management is not needed on these soils."

### **2e1 Map Units FaB, RcB, RsB**

"aSOI", "2e1", "This map unit consists of gently sloping, well drained soils of the uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy or clayey subsoil layers. These soils are prime farmland."



"bSAC", "2e1", "These soils have a well aerated root zone more than 60 inches thick. The available water capacity averages moderate to high in the root zone. These soils have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soil. Runoff during rain is moderate to rapid on unprotected areas and the erosion hazard is moderate."

"cH2O", "2e1", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "2e1", "These soils have moderate limitations for growing cultivated crops because of the hazard of erosion. A wide variety of cultivated crops is well adapted. Such crops as corn and soybeans grow well where properly managed. Moderate erosion control measures are needed. Maximum yields require good seed-soil contact, fertilizing, and liming. Nutrient management maximize yields."

"eERO", "2e1", "Moderate erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half the time. Soil-Improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "2e1", "Crops produced on these soils are not normally irrigated."

"hPAS", "2e1", "These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and the improved bahiagrasses are well adapted. Clovers and other legumes are also adapted. They grow well where properly managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover."

"iWMG", "2e1", "Water table management is not normally practiced on these soils."

## **2e2 Map Units BoB, CaB, MaB, NoB, TfB**

"aSOI", "2e2", "This map unit consists of gently sloping, well drained to moderately well drained soils on uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly permeable loamy subsoil layers. These soils are prime farmland."

"bSAC", "2e2", "These soils have a root zone that is somewhat restricted by a compact subsoil and by slight wetness in wet seasons. The available water capacity in the root zone averages moderate. Natural fertility is low but crops respond moderately well to fertilization. The internal drainage rate is slow under natural conditions. Runoff during rains is moderate on unprotected areas and the hazard of erosion is moderate."

"cH2O", "2e2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days is the water table above the normal seasonal high water table depth."

"dCUL", "2e2", "These soils have moderate limitations for growing cultivated crops due to the hazard of erosion. The variety of cultivated crops is somewhat limited by wetness. Crops such as corn and peanuts are adapted where properly managed. Moderate erosion control measures are needed. Maximum yields require good seedbed preparation and nutrient management."

"eERO", "2e2", "Moderate erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "2e2", "Crops produced on these soils are not normally irrigated."

"hPAS", "2e2", "These soils are well suited to pastures and hay crops. Improved pasture plants such as clovers, hybrid bermudagrass, and improved bahiagrasses are well adapted. They produce well where they are properly managed. They require nutrient management and controlled grazing to maintain vigorous plants and a good ground cover."

"iWMG", "2e2", "Water table management is not normally practiced on these soils; however, tile drains are needed to maintain good drainage for such crops as tobacco."

### **2e3 Map Units CuB, ShB**

"aSOI", "2e3", "This map unit consists of gently sloping, well drained soils on upland ridges. They have sandy or loamy surface layers less than 20 inches thick, and slowly permeable clayey subsoil layers. These soils are prime farmland."

"bSAC", "2e3", "These soils have a well aerated root zone 22 to 36 inches thick. Below this depth it is limited by a firm, slowly permeable subsoil layer. The available water capacity is low to moderate. Natural fertility is low and crops have only a moderate response to fertilization. Rainfall is readily absorbed initially, but slow permeability limits the amount that can be absorbed during heavy rains. Runoff moderate to rapid on unprotected slopes and the erosion hazard is moderate."

"cH2O", "2e3", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "2e3", "These soils have moderate limitations for growing cultivated crops because of the hazard of erosion. The variety of well adapted crops is somewhat limited by the root zone. Crops such as corn, soybeans, and oats grow moderately well where properly managed. Moderate erosion control measures are needed. Maximum yields require a good seed-soil contact and seedbed preparation is essential. Nutrient management maximize yields."

"eERO", "2e3", "Moderate erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half the time. Soil Improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"hPAS", "2e3", "These soils are well suited to pastures. Improved pasture plants such as clovers, hybrid bermudagrass and the improved bahiagrasses are well adapted. They grow well when they are properly managed. They require fertilizing, liming, and controlled grazing to maintain vigorous plants for highest yields and good soil cover."

"iWMG", "2e3", "Water table management is not normally practiced on these soils."

#### **2e4 Map Units DuB, EaB, EfB, LyB**

"aSOI", "2e4", "This map unit consists of gently sloping, moderately well drained soils on terraces and uplands. They have sandy surface layers less than 20 inches thick, and moderately slowly or slowly permeable loamy or clayey subsoils. These soils are prime farmland."

"bSAC", "2e4", "The root zone is limited by a seasonal high water table. The available water capacity is moderate in the root zone. Natural fertility is low, but crops respond well to fertilization. Internal drainage rate is slow, but the soils respond well to artificial drainage. Some drainage or a raised seedbed is needed for highest yields of most crops. Rainfall runoff from unprotected areas is moderate and the hazard of erosion is moderate."

"cH2O", "2e4", "In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2e4", "These soils have moderate limitations for cultivated crops because of the hazard of erosion. The variety of crops that are well adapted is somewhat limited by occasional wetness. Such crops as corn, soybeans, and peanuts grow moderately where properly managed. Moderate erosion control measures are needed. Maximum yields require proper seedbeds and nutrient management. Tile drains to remove water during wet seasons are needed for crops such as tobacco."

"eERO", "2e4", "Moderate erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"hPAS", "2e4", "These soils are well suited to improved pastures and hay crops. Clovers, hybrid bermudagrass, and bahiagrasses are well adapted. They grow well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and a good ground cover."

"iWMG", "2e4", "Ditches and/or tile drains, to remove excess surface water during rains, are needed to prevent crop damage for most crops produced on these soils. Some crops such as tobacco require more intensive water control measures. Tile drains can also be used to provide supplemental water through subirrigation."

## **2s1 Map Units EuB, RdB**

"aSOI", "2s1", "This map unit consists of nearly level and gently sloping, well drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately to moderately rapidly permeable loamy subsoil layers."

"bSAC", "2s1", "These soils have a well aerated root zone more than 72 inches thick. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed with little runoff. The erosion hazard is slight."

"cH2O", "2s1", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "2s1", "These soils have moderate limitations for cultivated crops due to droughtiness. They can be cultivated safely with ordinary farming methods, but droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. With good management such crops as corn, soybeans, peanuts, and tobacco can be grown. Yields can be maximized with nutrient management."

"eERO", "2s1", "Row crops should be planted on the contour in alternate strips with cover crops. Crop rotations should include cover crops at least half the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "2s1", "Crops produced on these soils are not normally irrigated and good yields can be achieved without irrigation but yields can be increased with irrigation. Irrigation of some high value crops such as tobacco is usually feasible where irrigation water is readily available."

"hPAS", "2s1", "These soils are well suited to pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted. They produce well where nutrient management is practiced. Controlled grazing is important to maintain vigorous plants for maximum yields and good cover."

"iWMG", "2s1", "Water table management is not normally practiced on these soils."

## **2s2 Map Units BwB, EnA, EnB, GcA, GcB, LzB, NrA, NrB**

"aSOI", "2s2", "This map unit consists of nearly level and gently sloping, well drained to moderately well drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately slowly to slowly permeable loamy and clayey subsoil layers."

"bSAC", "2s2", "These soils have a well aerated root zone that is limited at about 45 inches by slowly permeable subsoils or by wetness. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed with little runoff. The erosion hazard is slight."

"cH2O", "2s2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2s2", "These soils have moderate limitations for cultivated crops due to droughtiness during dry seasons and wetness during wet seasons. They can be cultivated safely with ordinary good farming methods, but droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. With good management such crops as corn, soybeans, peanuts and tobacco can be grown. Nutrient management maximizes yields."

"eERO", "2s2", "Row crops should be planted on the contour in alternate strips with cover crops. Crop rotations should include cover crops at least half the time. Soil improving cover crops and all residues of other crops should be left on the field."

"fIRR", "2s2", "Crops produced on these soils are not normally irrigated; however, yields can be increased with irrigation. Irrigation is feasible where water is readily available."

"hPAS", "2s2", "These soils are well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good cover."

"iWMG", "2s2", "Water table management is not normally practiced on these soils."

### **2s3 Map Units KaB, KgB, KsB**

"aSOI", "2s3", "This map unit consists of nearly level to gently sloping, somewhat poorly and moderately well drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately slowly permeable loamy subsoil layers."

"bSAC", "2s3", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity averages low to moderate in the root zone. Natural fertility is low, but crops respond well to fertilization. The internal drainage rate under natural conditions is slow and response to artificial drainage is moderately slow."

"cH2O", "2s3", "In normal years these soils have a seasonal high water table at a depth of between 18 and 42 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days is the water table above the normal seasonal high water table depth."

"dCUL", "2s3", "These soils have moderate limitations for cultivated crops due to wetness and the hazard of erosion. With conservation practices that include erosion control and water table management, they are suited to a wide variety of cultivated crops. Nutrient management maximizes yields."

"eERO", "2s3", "Moderate erosion control measures that include crop rotations are needed. These measures should provide cover crops on the land at least half the time. Soil improving cover crops and all crop residues should be left on the land."

"hPAS", "2s3", "These soils are well suited to pastures. Grasses such as hybrid bermudagrass and bahiagrasses grow well when well managed. White clovers and other legumes are moderately adapted. Best yields require nutrient management and carefully controlled grazing to maintain plant vigor."

"iWMG", "2s3", "Ditches and/or tile drains, to remove excess surface water during rains, are needed to prevent crop damage for most crops produced on these soils. Some crops such as tobacco require more intensive water control measures. Tile drains can also be used to provide supplemental water through subirrigation."

### **2w1 Map Unit GdA**

"aSOI", "2w1", "This map unit consists of nearly level moderately well drained soils on uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy subsoil layers. These soils are prime farmland."

"bSAC", "2w1", "A well aerated root zone is slightly limited by a seasonal high water table in wet seasons. The soils have a moderate available water capacity in the root zone. Natural fertility is low and crops respond moderately well to fertilization. The internal drainage rate under natural conditions is slow and response to artificial drainage is moderate."

"cH2O", "2w1", "In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w1", "These soils have moderate limitations for growing cultivated crops. The variety of adapted cultivated crops is somewhat limited by occasional wetness. Crops such as corn and peanuts are adapted when they are properly managed. Crop rotations should include cover crops on the land at least half the time. Crop residue should be left on the soil. Maximum yields require good seedbed preparation and nutrient management."

"eERO", "2w1", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w1", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w1", "These soils are well suited to pastures and hay crops. Improved pasture plants such as clovers, hybrid bermudagrass, and improved bahiagrass are well adapted. They grow well when they are well-managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields."

"iWMG", "2w1", "Ditches and/or tile drains, to remove excess surface water during rains, are needed to prevent crop damage for most crops. Some crops such as tobacco require more intensive water control measures. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

## **2w2 Map Unit EfA**

"aSOI", "2w2", "This map unit consists of nearly level, moderately well drained soils on low ridges in the lowlands and upland flats. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly or slowly permeable loamy or clayey subsoil layers. These soils are prime farmland."

"bSAC", "2w2", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity is moderate within the root zone. Natural fertility is low, but crops respond well to fertilization. The internal drainage rate is slow under natural conditions, but the soils respond readily to artificial drainage. Drainage is needed for highest yields of most crops."

"cH2O", "2w2", "In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w2", "These soils have moderate limitations for cultivated crops because of wetness. Corn, peanuts, soybeans, and tobacco grow well where well managed. Cover crops should be rotated with row crops and crop rotations should include a cover crop at least half of the time. All crop residues should be left on the land. Other important management practices include good seedbed preparation and nutrient management."

"eERO", "2w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w2", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w2", "These soils are well suited to pastures and hay crops. Clovers, hybrid bermudagrass, and bahiagrasses are well adapted. These plants need nutrient management for highest yields. Grazing should be controlled to maintain vigorous plants for best yields."

"iWMG", "2w2", "These soils need a water table management system designed to remove excess water rapidly after heavy rains. Carefully designed tile or open drains are needed. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

### **2w3 Map Unit AnA**

"aSOI", "2w3", "This map unit consists of nearly level, moderately well drained soils on low ridges of the uplands. They have sandy or loamy surface layers less than 20 inches thick, and slowly permeable, clayey subsoil layers. These soils are prime farmland."

"bSAC", "2w3", "A well aerated root zone is limited by a firm, clayey and slowly to very slowly permeable subsoil layers. The available water capacity of the root zone is moderate to high. Natural fertility is low and crops respond only moderately to fertilizers. Surface runoff is slow. Internal drainage is slow and response to artificial drainage is slow."

"cH2O", "2w3", "In normal years these soils have a seasonal high water table at a depth of between 30 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."



"dCUL", "2w3", "These soils have moderate limitations for cultivated crops due to wetness and a compact subsoil. These factors limits the number of adapted crops. Corn and soybeans are adapted crops. No special erosion control practices are needed. Row crops should be grown in rotation with cover crops on the land at least half the time. Soil building cover crops and all crop residue should be left on the soil. Good seedbed preparation and nutrient management are needed for best yields."

"eERO", "2w3", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w3", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w3", "These soils are moderately well suited to pastures. Clovers are poorly adapted. Hybrid bermudagrass and improved bahiagrasses are moderately adapted under good management. Best yields require fertilization, liming, and careful controlled grazing."

"iWMG", "2w3", "Drainage is not normally needed; however, some crops show increased yields after drainage ditches that remove excess surface water are installed."

#### **2w4 Map Units LzA, Sf**

"aSOI", "2w4", "This map unit consists of nearly level, moderately well drained and somewhat poorly drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick and moderately permeable loamy subsoil layers."

"bSAC", "2w4", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low, but the soils respond well to fertilization. Internal drainage rate is moderate, and the soils respond well to water table management. Water table management is needed for highest yields of some crops."

"cH2O", "2w4", "In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w4", "These soils have moderate limitations for cultivated crops due to wetness. In their natural condition the variety of adapted crops is limited to those that are tolerant of slight wetness. Crop rotations should include close growing crops, on the land at least half the time. All crop residues should be left on the land. Best yields require good seedbed preparation and nutrient management."

"eERO", "2w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w4", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w4", "These soils are well suited to pastures and hay crops. Such grasses as hybrid bermudagrass and improved bahiagrasses grow well where well managed. Several legumes are also well adapted. These plants require nutrient management and controlled grazing for highest yields."

"iWMG", "2w4", "These soils need a water table management system designed to remove excess water rapidly after heavy rains. Carefully designed tile or open drains are needed. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

## **2w5 Map Unit LyA**

"aSOI", "2w5", "This map unit consists of nearly level, somewhat poorly drained soils on stream terraces and on interstream divides of the uplands. They have loamy surface layers less than 20 inches thick, and moderate or moderately slowly permeable subsoil layers."

"bSAC", "2w5", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity is low to moderate in the root zone. Natural fertility is low, but crops respond well to fertilization. The internal drainage is slow and response to artificial drainage is moderately slow."

"cH2O", "2w5", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w5", "These soils have moderate limitations for cultivated crops due to wetness. They are well suited to some cultivated crops but the variety is limited by the presence of a water table near the surface. Crop rotations should include a close-growing crop at least half the time. Soil improving cover crops and crop residues should be returned to the soil. High yields require good seedbed preparation with the rows bedded and nutrient management."

"eERO", "2w5", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w5", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w5", "These soils are well suited to pastures and hay crops. Such grasses as hybrid bermudagrass and the improved bahiagrasses are well adapted. White clover and other legumes are moderately well adapted. Best yields require nutrient management and carefully controlled grazing to maintain vigorous plants for maximum yields and good cover."

"iWMG", "2w5", "Water table management is needed for successful use of these soils for most cultivated crops. Crops such as corn, soybeans, and peanuts do well if a drainage system is maintained or crops are planted and harvested during periods of low rainfall. Tile drains or shallow surface ditches provide an adequate water management system. Tile drains can also supply water through subirrigation."

## **2w6 Map Unit Lu**

"aSOI", "2w6", "This map unit consists of nearly level and gently sloping, well drained to moderately well drained soils in slight depressions on uplands. They have loamy layers more than 60 inches thick. These soils are prime farmland."

"bSAC", "2w6", "The root zone is unrestricted. The available water capacity is moderate to high. Natural fertility is moderate to high and the soils respond well to fertilization. Runoff from higher areas accumulates on some areas during heavy rains, but internal drainage is rapid and the water soon filters through the soil into underlying porous strata."

"cH2O", "2w6", "In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w6", "These soils are well suited to a wide variety of cultivated crops. They occur in slight depressions where soil accumulates from adjacent higher areas. They are usually small and appear as low places in larger fields. Drainage is rapid enough in most areas to permit growing the same crops that are grown on the adjacent soils. Better moisture relationships and higher productivity usually is evidenced by better plant growth with similar management on these areas."

"eERO", "2w6", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w6", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w6", "The soils are well suited to pastures and hay crops. Improved pasture plants such as clovers, hybrid bermudagrass, and improved bahiagrass are well adapted. They grow well when they are well managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields."

"iWMG", "2w6", "Most areas of this soil requires tile drainage to remove surface water to reduce crop damage and to obtain maximum yields."

### **3e1 Map Unit RsC**

"aSOI", "3e1", "This map unit consists of sloping, well drained soils on side slopes of uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy or clayey subsoil layers. These soils are prime farmland."

"bSAC", "3e1", "These soils have a well aerated root zone more than 60 inches thick. The available water capacity is moderate to high in the root zone. They have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soil. Runoff after rains is rapid on unprotected areas and the erosion hazard is severe."

"cH2O", "3e1", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3e1", "These soils have severe limitations for growing cultivated crops because of the hazard of erosion. A wide variety of cultivated crops is well adapted. Such crops as corn and soybeans grow well when properly managed. Maximum yields require good soil tilth and nutrient management."

"eERO", "3e1", "Intensive erosion control measures are needed. These measures include a system of well designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "3e1", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e1", "These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and the improved bahiagrasses are well adapted. Clovers and other legumes are also well adapted. They grow well where properly managed and require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover to reduce the hazard of erosion."

"iWMG", "3e1", "Water table management is not normally practiced on these soils."

### **3e2 Map Units BoC, GdC, NoC**

"aSOI", "3e2", "This map unit consists of sloping, well drained to moderately well drained soils on low ridges of the uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly to slowly permeable loamy subsoil layers."

"bSAC", "3e2", "A well aerated root zone is limited by compact subsoil layers at 30 to 50 inches below the surface. The available water capacity averages moderate to high in the root zone. Natural fertility is low and the crops respond only moderately to fertilization. Runoff during rains is rapid on unprotected areas and the hazard of erosion is severe."

"cH2O", "3e2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3e2", "These soils have severe limitations for cultivated crops due to the hazard of erosion. They are only moderately suited for most crops. The variety of adapted crops is somewhat limited by occasional wetness. Crops such as corn, soybeans, and peanuts are only moderately suited. Maximum yields require good soil tilth and nutrient management."

"eERO", "3e2", "Intensive erosion control measures are needed. Such measures include carefully designed terraces with stabilized outlets, contour cultivation of row crops grown in alternate strips with close growing crops, and crop rotations that include close growing crops on the land at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR", "3e2", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e2", "The soils are only moderately suited to pastures. Hybrid bermudagrass and improved bahiagrasses are only moderately adapted. They produce only moderate yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover to control erosion."

"iWMG", "3e2", "Tile or open drains may be needed to intercept seepage water from higher areas."

### **3e3 Map Units AnB, OkB**

"aSOI", "3e3", "This map unit consists of gently sloping, well drained or moderately well drained soils on side slopes of upland ridges. They have sandy surface layers less than 20 inches thick, and slowly permeable clayey or loamy subsoil layers."

"bSAC", "3e3", "The soils have a well aerated root zone 22 to 36 inches thick. It is limited by firm, slowly permeable subsoil. These soils have low natural fertility and crops have only fair response to fertilization. The available water capacity is moderate. Rainfall is readily absorbed into the soil, but slow permeability of the subsoil limits the amount that can be absorbed during any one heavy rain. Runoff from rain is rapid and the erosion hazard is severe."

"cH2O","3e3","In normal years these soils have no seasonal high water table within 72 inches."

"dCUL","3e3","These soils have severe limitations for cultivated crops because of the hazard of erosion. They are not well suited to most cultivated crops. They have only fair suitability for such crops as corn and soybeans. Maximum yields require good soil tilth and nutrient management."

"eERO","3e3","Intensive erosion control measures are needed. These measures should include well designed terraces with stabilized outlets. They should also include contour cultivation of row crops grown in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Soil building cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR","3e3","Crops produced on these soils are not normally irrigated."

"hPAS","3e3","The soils are well suited to pastures. Such plants as clovers, hybrid bermudagrass, and improved bahiagrasses are well adapted. They grow well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover for erosion control."

"iWMG","3e3","Water table management is not normally practiced on these soils."

### **3e4 Map Unit GdB**

"aSOI","3e4","This map unit consists of sloping, moderately well drained soils on terraces and uplands. They have sandy surface layers less than 20 inches thick, and moderately slowly or slowly permeable loamy or clayey subsoils."

"bSAC","3e4","The root zone is limited by a seasonal high water table. The available water capacity is moderate in the root zone. Natural fertility is low, but the soils respond well to fertilizers. Rainfall runoff from unprotected areas is rapid and the hazard of erosion is severe."

"cH2O","3e4","In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3e4", "These soils have severe limitations for cultivated crops because of the hazard of erosion. The variety of crops that are well adapted is somewhat limited by occasional wetness. Such crops as corn, soybeans, and peanuts grow well where properly managed. Maximum yields require proper seedbeds. Tile drains to remove water during wet seasons are needed for crops such as tobacco. Nutrient management maximize yields."

"eERO", "3e4", "Intensive erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "3e4", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e4", "These soils are moderately well suited to improved pastures and hay crops. Clovers, hybrid bermudagrass, and bahiagrasses are well adapted. They grow well where they are fertilized and limed. Controlled grazing is needed to maintain vigorous plants for maximum yields and a good ground cover."

"iWMG", "3e4", "A water table management system that includes ditches to remove excess surface water during rains is needed to prevent crop damage for most crops produced on these soils. Some crops such as tobacco require more intensive water control measures including tile drains. Tile drains can also be used to provide supplemental water through subirrigation."

### **3e9 Map Units BoB2,CaB2,CuB2,MaB2,NoB2,TfB2**

"aSOI", "3e9", "This map unit consists of gently sloping, well drained to moderately well drained soils on low ridges of the uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly to slowly permeable loamy subsoil layers and are eroded."

"bSAC", "3e9", "A well aerated root zone is limited by compact subsoil layers at 30 to 50 inches below the surface. The available water capacity averages moderate to high in the root zone. Natural fertility is low and the crops respond only moderately to fertilization. Runoff during rains is rapid on unprotected areas and the hazard of additional erosion is severe."

"cH2O", "3e9", "In normal years these soils have a seasonal high water table at a depth of between 36 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3e9", "These soils have severe limitations for cultivated crops due to the hazard of additional erosion. They are only moderately suited for most crops. The variety of adapted crops is somewhat limited by occasional wetness. Crops such as corn, soybeans, and peanuts are only moderately suited. Maximum yields require good soil tilth and nutrient management."

"eERO", "3e9", "Intensive erosion control measures are needed. Such measures include carefully designed terraces with stabilized outlets, contour cultivation of row crops grown in alternate strips with close growing crops, and crop rotations that include close growing crops on the land at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR", "3e9", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e9", "The soils are only moderately suited to pastures. Hybrid bermudagrass and improved bahiagrasses are only moderately adapted. They produce only moderate yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover to control erosion."

"iWMG", "3e9", "Tile or open drains may be needed to intercept seepage water from higher areas."

### **3e20 Map Units FaB2, RsB2**

"aSOI", "3e20", "This map unit consists of gently sloping, well drained soils on side slopes of uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy or clayey subsoil layers and are eroded."

"bSAC", "3e20", "The soils have a well aerated root zone more than 60 inches thick. The available water capacity is moderate to high in the root zone. They have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soil. Runoff after rains is rapid on unprotected areas and the erosion hazard is severe."

"cH2O", "3e20", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3e20", "These soils have severe limitations for growing cultivated crops because of the hazard of erosion. A wide variety of cultivated crops is well adapted. Such crops as corn and soybeans grow well when properly managed. Maximum yields require good soil tilth and nutrient management."



"eERO","3e20","Intensive erosion control measures are needed. These measures include a system of well designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR","3e20","Crops produced on these soils are not normally irrigated."

"hPAS","3e20","These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and the improved bahiagrasses are well adapted. Clovers and other legumes are also well adapted. They grow well where properly managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover to reduce the hazard of erosion."

"iWMG","3e20","Water table management is not normally practiced on these soils."

### **3e21 Map Units CuC, OkC, ShC**

"aSOI","3e21","This map unit consists of sloping, well drained or moderately well drained soils on side slopes of upland ridges. They have sandy surface layers less than 20 inches thick, and slowly permeable clayey or loamy subsoil layers."

"bSAC","3e21","The soils have a well aerated root zone 22 to 36 inches thick. It is limited by firm, slowly permeable subsoil. These soils have low natural fertility and crops have only fair response to fertilization. The available water capacity is moderate. Rainfall is readily absorbed into the soil, but slow permeability of the subsoil limits the amount that can be absorbed during any one heavy rain. Runoff from rain is rapid and the erosion hazard is severe."

"cH2O","3e21","In normal years these soils have no seasonal high water table within 72 inches."

"dCUL","3e21","These soils have severe limitations for cultivated crops because of the hazard of erosion. They are not well suited to most cultivated crops. They have only fair suitability for such crops as corn and soybeans. Maximum yields require good soil tilth and nutrient management."

"eERO","3e21","Intensive erosion control measures are needed. These measures should include well designed terraces with stabilized outlets. They should also include contour cultivation of row crops grown in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Soil building cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR","3e21","Crops produced on these soils are not normally irrigated."

"hPAS", "3e21", "The soils are well suited to pastures. Such plants as clovers, hybrid bermudagrass, and improved bahiagrasses are well adapted. They grow well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover for erosion control."

"iWMG", "3e21", "Water table management is not normally practiced on these soils."

### **3e24 Map Units CtB3, ShB2**

"aSOI", "3e24", "This map unit consists of gently sloping, well drained or moderately well drained soils on side slopes of upland ridges. They have sandy surface layers less than 20 inches thick, and slowly permeable clayey subsoil layers and are eroded."

"bSAC", "3e24", "The soils have a well aerated root zone 22 to 36 inches thick. It is limited by firm, slowly permeable subsoil. These soils have low natural fertility and crops have only fair response to fertilization. The available water capacity is moderate. Rainfall is readily absorbed into the soil, but slow permeability of the subsoil limits the amount that can be absorbed during any one heavy rain. Runoff from rain is rapid and the erosion hazard is severe."

"cH2O", "3e24", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3e24", "These soils have severe limitations for cultivated crops because of the hazard of erosion. They are not well suited to most cultivated crops. They have only fair suitability for such crops as corn and soybeans. Maximum yields require good soil tilth and nutrient management."

"eERO", "3e24", "Intensive erosion control measures are needed to prevent further erosion. These measures should include well designed terraces with stabilized outlets. They should also include contour cultivation of row crops grown in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Soil building cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR", "3e24", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e24", "The soils are well suited to pastures. Such plants as clovers, hybrid bermudagrass, and improved bahiagrasses are well adapted. They grow well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover for erosion control."

"iWMG", "3e24", "Water table management is not normally practiced on these soils."

### **3s1 Map Units EuC, RdC**

"aSOI", "3s1", "This map unit consists of sloping, well drained soils on side slopes of the uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately to moderately rapidly permeable loamy subsoil layers."

"bSAC", "3s1", "These soils have a well aerated root zone more than 72 inches thick. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is moderate and the hazard of erosion on these areas is moderate."

"cH2O", "3s1", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3s1", "These soils have severe limitations for cultivated crops due to droughtiness and erosion. Droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The steepness of slopes further limits the suitability by making cultivation more difficult and increasing the hazard of erosion. Yields can be maximized with nutrient management."

"eERO", "3s1", "Intensive erosion control measures such as cultivating row crops on the contour in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "3s1", "Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS", "3s1", "These soils are moderately well suited to pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted. They produce well where nutrient management is practiced. Controlled grazing is important to maintain vigorous plants for maximum yields and to provide good cover to minimize erosion."

"iWMG", "3s1", "Water table management is not normally practiced on these soils."

### **3s2 Map Units BwC, GcC, NrC**

"aSOI", "3s2", "This map unit consists of sloping, well or moderately well drained soils on low ridges. They have sandy surface and subsurface layers that are 20 to 40 inches thick, and moderately slowly permeable to slowly permeable loamy and clayey subsoil layers."

"bSAC", "3s2", "These soils have a well aerated root zone that is limited at about 45 inches by slowly permeable subsoils or by wetness. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is moderate and the hazard of erosion on these areas is moderate."

"cH2O", "3s2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3s2", "These soils have severe limitations for cultivated crops due to droughtiness and erosion. Droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The steepness of slopes further limits the suitability by making cultivation more difficult and increasing the hazard of erosion. Yields can be maximized with nutrient management."

"eERO", "3s2", "Intensive erosion control measures such as cultivating row crops on the contour and in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "3s2", "Irrigation of some high value crops such as tobacco is usually feasible where irrigation water is readily available."

"hPAS", "3s2", "These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG", "3s2", "Water table management is not normally practiced on these soils."

### **3s3 Map Units BfB, BnB**

"aSOI", "3s3", "This map unit consists of nearly level and gently sloping, well drained or moderately well drained soils of the uplands. The soils have sandy surface and subsurface layers 40 or more inches thick, and moderately to moderately rapidly permeable loamy subsoil layers."

"bSAC", "3s3", "The root zone of these soils is limited by droughtiness and somewhat by a seasonal high water table in wet seasons. Available water capacity averages very low to low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","3s3","In normal years these soils have a seasonal high water table at a depth of between 40 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3s3","These soils have severe limitations for cultivated crops. Droughtiness and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is also a management concern. Nutrient management maximizes yields."

"eERO","3s3","Some erosion control measures are needed such as cultivating row crops on the contour and in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least two-thirds of the time. Soil building cover crops and all crop residues should be left on the land."

"fIRR","3s3","Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS","3s3","These soils are poorly suited to pastures and hay crops. The soils are so droughty and have such low nutrient holding capacity that most grasses make only fair growth when carefully managed. Deep rooting hybrid bermudagrass and bahiagrasses are best adapted. They require nutrient management and carefully controlled grazing to maintain vigorous plants."

"iWMG","3s3","Water table management is not normally practiced on these soils."

### **3s4 Map Units LaB(Bonifay), LdB(Bonifay), LkB**

"aSOI","3s4","This map unit consists of nearly level and gently sloping, well drained soils on upland ridges. The soils have sandy surface and subsurface layers 40 to 80 inches thick and loamy subsoils that have rapid to moderate permeability."

"bSAC","3s4","These soils have a well aerated root zone that is thicker than 80 inches. The available water capacity averages very low to low in the root zone. Natural fertility is low to moderate and crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","3s4","In normal years these soils do not have a seasonal high water table within 72 inches."

"dCUL","3s4","These soils have severe limitations to cultivated crops. Droughtiness and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is also a management concern. Nutrient management maximizes yields."

"eERO", "3s4", "Some erosion control measures are needed such as cultivating row crops on the contour and in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the land."

"fIRR", "3s4", "Good yields of cultivated crops require irrigation; however, irrigation is feasible for only a few high value crops and only where irrigation water is readily available."

"hPAS", "3s4", "These soils are well suited to pastures and hay crops. Deep rooting hybrid bermudagrass and bahiagrasses grow well where nutrient management is practiced. These soils require light and frequent fertilizing and carefully controlled grazing to maintain vigorous plants. Production is occasionally reduced by extended droughts."

"iWMG", "3s4", "Water table management is not normally practiced on these soils."

### **3s5 Map Unit Sc**

"aSOI", "3s5", "This map unit consists of nearly level and gently sloping, somewhat poorly drained to moderately well drained soils on broad low ridges. They have sandy layers that are rapidly permeable to depths of more than 80 inches."

"bSAC", "3s5", "The root zone of these soils is limited by a seasonal high water table in wet seasons as well as droughtiness. The available water capacity is low to very low in all layers. Natural fertility is low and crop response to fertilization is moderate to low. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "3s5", "In normal years these soils have a seasonal high water table at a depth of between 18 and 40 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3s5", "These soils have severe limitations for cultivated crops. Droughtiness and rapid leaching of plant nutrients limit the choice of plants and reduces potential yields of adapted crops. Soil management should include row crops on the contour in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the land."

"eERO", "3s5", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3s5", "Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS", "3s5", "These soils are moderately well suited to pastures and hay. Plants such as hybrid bermudagrass and bahiagrasses are well adapted. These soils require nutrient management to maximize yields. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG", "3s5", "Tile or other kinds of drains are needed for some crops that are damaged by high water table during the growing season. Tile drains can also be used for subirrigation during periods of low rainfall."

### **3s20 Map Units EsB, EtB**

"aSOI", "3s20", "This map unit consists of gently sloping, well drained soils on upland ridges. They have sandy surface and subsurface layers that are 40 to 80 inches thick, and moderately permeable loamy subsoil layers."

"bSAC", "3s20", "These soils have a well aerated root zone that is not limited above a depth of about 72 inches. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is slight and the hazard of erosion on these areas is slight to moderate."

"cH2O", "3s20", "In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL", "3s20", "These soils have severe limitations for cultivated crops due to droughtiness. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. Yields can be maximized with nutrient management. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"eERO", "3s20", "Moderate erosion control measures such as cultivating row crops on the contour and in alternate strips with cover crops are needed."

"fIRR", "3s20", "Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS", "3s20", "These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG","3s20","Water table management is not normally practiced on these soils."

### **3s22 Map Unit AI (Bigbee)**

"aSOI","3s22","This map unit consists of nearly level and gently sloping, somewhat poorly drained to well drained soils on flood plains broad. These soils are occasionally flooded. They have sandy layers that are rapidly permeable to depths of more than 20 inches."

"bSAC","3s22","The root zone of these soils is limited by a seasonal high water table in wet seasons as well as droughtiness during periods of low rainfall. The available water capacity is low to very low in all layers. Natural fertility is low and crop response to fertilization is moderate to low. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","3s22","In normal years these soils have a seasonal high water table at a depth of between 40 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth. They are occasionally flooded for periods of brief duration"

"dCUL","3s22","These soils have severe limitations for cultivated crops. Droughtiness, flooding, and the rapid leaching of plant nutrients limit the choice of plants and reduces potential yields of adapted crops. If cropped, soil management should include row crops on the contour in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximize yields. Soil improving cover crops and all crop residues should be left on the land."

"eERO","3s22","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","3s22","Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS","3s22","These soils are only moderately suited to pastures and hay. Plants such as hybrid bermudagrass and bahiagrasses are adapted. These soils require nutrient management to maximize yields. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG","3s22","Water table management is not normally practiced on these soils."



### **3w4 Non-Hydric phases of Map Unit Gr**

"aSOI", "3w4", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers less than 20 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w4", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w4", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w4", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system, these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w4", "Crops produced on these soils are not normally irrigated."

"hPAS", "3w4", "These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w4", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

### **3w23 Map Units LyA, Sf**

"aSOI", "3w23", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers less than 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w23", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w23", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w23", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w23", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w23", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"hPAS", "3w23", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as the improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w23", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **4e3 Map Unit LnD(Nankin)**

"aSOI", "4e3", "This map unit consists of strongly sloping, well drained soils on side slopes of upland ridges. They have sandy or loamy surface layers less than 20 inches thick and slowly permeable subsoil layers."

"bSAC", "4e3", "These soils have a well aerated root zone 22 to 36 inches thick. It is limited by a slowly permeable firm subsoil. The available water capacity is low to moderate in the surface layers and moderate to high in the subsoil layers. These soils have low natural fertility and crop response to fertilization is only fair. Runoff from rain is very rapid on unprotected areas and the erosion hazard is very severe."

"cH2O", "4e3", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4e3", "These soils are poorly suited to row crops because slopes are too steep and the hazard of erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only moderately suited. The slopes are too steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e3", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e3", "Crops produced on these soils are not normally irrigated."

"hPAS", "4e3", "These soils are moderately suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are moderately well adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e3", "Water table management is not normally practiced on crops produced on these soils."

#### **4e4 Map Unit AnC**

"aSOI", "4e4", "This map unit consists of sloping, well drained soils on side slopes or low knolls and ridges of the upland. They have sandy or loamy surface layers less than 20 inches thick, and slowly or moderately slowly permeable subsoil layers."

"bSAC", "4e4", "These soils have a well aerated root zone restricted within 40 inches by loamy or clayey subsoils with slow permeability. The available water capacity is low to moderate in the root zone. The soils have low natural fertility and crop response to fertilization is poor. Runoff from rain is very rapid on unprotected areas and the erosion hazard is very severe."

"cH2O", "4e4", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "4e4", "These eroded soils are poorly suited to row crops because of slope and because or the hazard of additional erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only fairly suited. The slopes are too short or steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e4", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e4", "Crops produced on these soils are not normally irrigated."

"hPAS", "4e4", "These soils are fairly suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are moderately adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e4", "Water table management is not normally practiced on crops produced on these soils."

#### **4e6 Map Units CtC3, CuC2, ShC2**

"aSOI", "4e6", "This map unit consists of sloping, well drained soils on side slopes of upland ridges. They have loamy surface layers less than 20 inches thick and slowly permeable subsoil layers."

"bSAC", "4e6", "These eroded soils have a well aerated root zone 22 to 36 inches thick. It is limited by a slowly permeable firm subsoil. The available water capacity is low to moderate in the surface layers and moderate to high in the subsoil layers. The soils have low natural fertility and crop response to fertilization is only fair. Runoff from rain is very rapid on unprotected areas and the erosion hazard is very severe."

"cH2O", "4e6", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "4e6", "These soils are poorly suited to row crops because slopes are too short or steep and the hazard of additional erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only moderately suited. The slopes are too steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e6", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e6", "Crops produced on these soils are not normally irrigated"

"hPAS", "4e6", "These soils are moderately suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are moderately well adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e6", "Water table management is not normally practiced on crops produced on these soils."

#### **4e7 Map Units FaC2, RsC2**

"aSOI", "4e7", "This map unit consists of sloping, well drained soils on the side slopes of upland ridges. They have loamy surface layers less than 20 inches thick and moderately permeable loamy or clayey subsoil layers."

"bSAC", "4e7", "These eroded soils have a well aerated root zone more than 72 inches thick. The available water capacity averages moderate to high in the root zone. They have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soils. Runoff from unprotected areas during rain is very rapid. The erosion hazard is very severe."

"cH2O", "4e7", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "4e7", "These soils are poorly suited to row crops because slopes are too short or steep and the hazard of additional erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only moderately suited. The slopes are too steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e7", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e7", "Crops produced on these soils are not normally irrigated"

"hPAS", "4e7", "These soils are moderately well suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are well adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e7", "Water table management is not normally practiced on crops produced on these soils."

#### **4e9 Map Units BoC2, CaC2, NoC2, TfC2**

"aSOI", "4e9", "This map unit consists of sloping, well drained soils on side slopes or low knolls and ridges of the upland. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly to slowly permeable loamy subsoil layers."

"bSAC", "4e9", "These soils have a well aerated root zone restricted within 40 inches by loamy or clayey subsoils with slow permeability. The available water capacity is low to moderate in the root zone. The soils have low natural fertility and crop response to fertilization is poor. Runoff from rain is very rapid on unprotected areas and the erosion hazard is very severe."

"cH2O", "4e9", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4e9", "These eroded soils are poorly suited to row crops because of slope and because the hazard of additional erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only fairly suited. The slopes are too short or steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e9", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e9", "Crops produced on these soils are not normally irrigated."

"hPAS", "4e9", "These soils are fairly suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are moderately adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e9", "Water table management is not normally practiced on crops produced on these soils."

### **4s3 Map Unit BnC, KsC**

"aSOI", "4s3", "This map unit consists of sloping moderately well drained soils on side slopes of upland ridges. The soils have sandy surface and subsurface layers 40 to 80 inches thick and moderately permeable loamy subsoil layers."

"bSAC", "4s3", "The root zone of these soils is limited by droughtiness and somewhat by a seasonal high water table in wet seasons. Available water capacity averages very low to low in the root zone. Natural fertility is low and response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is moderate."

"cH2O", "4s3", "In normal years these soils have a seasonal high water table at a depth of between 40 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4s3", "These soils have severe limitations for cultivated crops. Droughtiness and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is also a management concern. Nutrient management maximizes yields."

"eERO", "4s3", "Moderate erosion control measures are needed such as cultivating row crops on the contour in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least three-fourths of the time. Soil building cover crops and all crop residues should be left on the land."

"fIRR", "4s3", "Irrigation of some high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion."

"hPAS", "4s3", "These soils are moderately suited to pastures and hay crops. The soils are droughty and have low nutrient holding capacity and most grasses make only moderate growth when carefully managed. Deep rooting hybrid bermudagrass and bahiagrasses are best adapted. They require nutrient management and carefully controlled grazing to maintain vigorous plants."

"iWMG", "4s3", "Water table management is not normally practiced on these soils."

#### **4s4 Map Unit LaC(Bonifay), LdC(Bonifay), LkC**

"aSOI", "4s4", "This map unit consists of nearly level and gently sloping, well drained soils on side slopes of upland ridges. The soils have sandy surface and subsurface layers 40 to 80 inches thick and loamy subsoils that have rapid to moderate permeability."

"bSAC", "4s4", "These soils have a well aerated root zone that is thicker than 80 inches. The available water capacity averages very low to low in the root zone. Natural fertility is low to moderate and crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is moderate."

"cH2O", "4s4", "In normal years these soils do not have a seasonal high water table within 72 inches."

"dCUL", "4s4", "These soils have very severe limitations to cultivated crops. Droughtiness, erosion, and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is management concern. Nutrient management maximizes yields."

"eERO", "4s4", "Moderate erosion control measures are needed such as cultivating row crops on the contour and in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least three-fourths of the time. Soil improving cover crops and all crop residues should be left on the land."

"fIRR", "4s4", "Good yields of cultivated crops require irrigation; however, irrigation is feasible for only a few high value crops and only where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion."

"hPAS", "4s4", "These soils are moderately well suited to pastures and hay crops. Deep rooting hybrid bermudagrass and bahiagrasses grow well where nutrient management is practiced. These soils require nutrient management that includes frequent fertilizing at low application rates, as well as carefully controlled grazing to maintain vigorous plants. Production is occasionally reduced by extended droughts."

"iWMG", "4s4", "Water table management is not normally practiced on these soils."

#### **4s7 Map Units LaB(Lakeland), LdB(Lakeland)**

"aSOI", "4s7", "This map unit consists of nearly level and gently sloping, well drained to excessively drained soils on to broad ridges. These soils have very rapidly permeable sandy layers to depths of more than 80 inches."



"bSAC", "4s7", "The root zone of these soils well aerated to a depth of 80 inches or more. Root development is limited by droughtiness. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to fertilization is low to moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "4s7", "In normal years these soils do not have a seasonal high water table within a depth of 80 inches."

"dCUL", "4s7", "These soils have very severe limitations for most cultivated crops due to droughtiness and the rapid leaching of plant nutrients. These factors also limit the choice of plants and reduces potential yields of adapted crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Irrigation and nutrient management are requirements for acceptable yields. Soil improving cover crops and all crop residues should be left on the ground."

"fIRR", "4s7", "Although irrigation is a requirement for acceptable yields, due to the low water holding capacity of these soils, irrigation of all crops except a high value crops is not usually feasible. Locating a reliable and economical source of irrigation water is another management concern."

"hPAS", "4s7", "These soils are moderately suited to pastures. Deep-rooting plants such as Hybrid bermudagrass and bahiagrasses are adapted but yields are restricted due to droughtiness. Nutrient management is a required practice. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG", "4s7", "Water table management is not normally practiced on these soils."

#### **4s20 Map Units EsC, EtC**

"aSOI", "4s20", "This map unit consists of sloping, well drained soils on upland ridges. They have sandy surface and subsurface layers that are 40 to 80 inches thick, and moderately permeable loamy subsoil layers."

"bSAC", "4s20", "These soils have a well aerated root zone that is not limited above a depth of about 72 inches. The available water capacity averages low to moderate in the root zone. Natural fertility is low and response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is slight and the hazard of erosion on these areas is moderate."

"cH2O", "4s20", "In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL", "4s20", "These soils have severe limitations for cultivated crops due to droughtiness. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. Erosion is an additional hazard. Yields can be maximized with nutrient management."

"eERO", "4s20", "Moderate erosion control measures such as cultivating row crops the contour in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "4s20", "Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS", "4s20", "These soils are moderately suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well when they are fertilized and limed. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG", "4s20", "Water table management is not normally practiced on these soils."

#### **4s21 Map Unit KgC**

"aSOI", "4s21", "This map unit consists of sloping, well drained soils on upland ridges. They have sandy surface and subsurface layers that are 40 to 80 inches thick, and moderately permeable loamy subsoil layers."

"bSAC", "4s21", "These soils have a well aerated root zone that is limited by a seasonal high water table in wet season and droughtiness during periods of low rainfall. The available water capacity averages low to moderate in the root zone. Natural fertility is low and response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is slight and the hazard of erosion on these areas is moderate."

"cH2O", "4s21", "In normal years these soils have a seasonal high water table at a depth of between 48 and 72 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4s21", "These soils have severe limitations for cultivated crops due to droughtiness. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The hazard of erosion is an additional management concern. Yields can be maximized with nutrient management."

"eERO", "4s21", "Moderate erosion control measures such as cultivating row crops on the contour in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil"

"fIRR", "4s21", "Irrigation of some high value crops such as tobacco is usually feasible where irrigation water is readily available."

"hPAS", "4s21", "These soils are moderately suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well when they are fertilized and limed. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG", "4s21", "Water table management is not normally practiced on these soils."

#### **4w4 Non-Hydric phases of Map Units Bd, Pr(Rains), Pt(Rains), Ra(Rains)**

"aSOI", "4w4", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers less than 20 inches thick over moderately to slowly permeable loamy and clayey layers."

"bSAC", "4w4", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w4", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w4", "These soils have severe limitations for cultivated crops because of wetness."

"eERO", "4w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w4", "Crops produced on these soils are not normally irrigated."

"hPAS", "4w4", "These soils are moderately well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w4", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **4w5 Non-Hydric phases of Map Unit Lo**

"aSOI", "4w5", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches of the surface."

"bSAC", "4w5", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w5", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w5", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w5", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w5", "Crops produced on these soils are not normally irrigated."

"hPAS", "4w5", "These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w5", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **4w7 Non-Hydric phases of Map Unit Pm**

"aSOI", "4w7", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 60 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "4w7", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w7", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w7", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w7", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w7", "Crops produced on these soils are not normally irrigated."

"hPAS", "4w7", "These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w7", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **4w23 Hydric phases of Map Units Pr(Rains), Pt(Rains), Ra**

"aSOI", "4w23", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers less than 20 inches thick over moderately to slowly permeable loamy and clayey layers."

"bSAC", "4w23", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w23", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w23", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness."

"eERO", "4w23" These hydric soils do not normally need special erosion control practices."

"fIRR", "4w23", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"hPAS", "4w23", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "4w23", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **4w24 Hydric phases of Map Unit Lo**

"aSOI", "4w24", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches of the surface."

"bSAC", "4w24", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilizer is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w24", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w24", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w24", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w24", "If cultivated, Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"hPAS", "4w24", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as the improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w24", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **4w26 Hydric phases of Map Units CwD3, Pm**

"aSOI", "4w26", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers 40 to 80 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "4w26", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w26", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w26", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness."

"eERO", "4w26", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w26", "If cultivated, highest yields require irrigation during periods of low rainfall either through subirrigation through a water table management system or by sprinklers."

"hPAS", "4w26", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "4w26", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems will be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

#### **5w4 Hydric phases of Map Unit Gr**

"aSOI", "5w4", "This map unit consists of nearly level, poorly drained and very poorly drained soils in depressions. They have sandy or loamy upper layers less than 20 inches thick, and slowly permeable clayey subsoil layers. They are covered with shallow water much of the time."

"bSAC", "5w4", "Wetness and ponding severely limits the use of the root zone of these soils for agronomic crops."

"cH2O", "5w4", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also ponded frequently for long duration. Most often ponding occurs in the winter and spring, but it may occur during any wet season."

"dCUL", "5w4", "These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO", "5w4", "Erosion is not a management concern for crops produced on these hydric soils."

"fIRR", "5w4", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "5w4", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."



"iWMG", "5w4", "If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for ponding control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and ponding protection economically feasible and environmentally sound."

#### **5w6 Hydric phases of Map Units Al, Sw**

"aSOI", "5w6", "This map unit consists of nearly level, very poorly drained and poorly drained soils on flood plains. They are saturated or flooded with water much of the time."

"bSAC", "5w6", "Wetness and flooding severely limits the use of the root zone of these soils for agronomic crops."

"cH2O", "5w6", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also flooded commonly for long duration. Most often flooding occurs in the winter and spring, but it may occur during any wet season."

"dCUL", "5w6", "These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO", "5w6", "Erosion is not a management concern on crops produced on these hydric soils."

"fIRR", "5w6", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "5w6", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "5w6", "If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for flood control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and flood protection economically feasible and environmentally sound."

### **6e3 Map Unit CwD3**

"aSOI", "6e3", "This map unit consists of strongly sloping, well drained soils on upland knolls and side slopes of short ridges. These soils have a past history of erosion. They have sandy or loamy surface layers less than 10 inches thick, and slowly permeable clayey subsoil layers."

"bSAC", "6e3", "The soils have a well aerated root zone 20 to 60 inches thick that is restricted by a firm, slowly permeable subsoil, marl or limestone. Available water capacity averages low to moderate in the root zone. Natural fertility is moderate. The soils absorb water rapidly where protected by a vegetative cover, but runoff from unprotected areas is very rapid. The hazard of erosion is very severe."

"cH2O", "6e3", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "6e3", "These soils are not suited to cultivated crops. Slopes are too steep and too easily eroded. These soils should be maintained in permanent vegetative covers."

"eERO", "6e3", "If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR", "6e3", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "6e3", "These soils are poorly suited to pastures and hay crops. Adapted grasses such as hybrid bermudagrass and bahiagrass grow moderately well under careful management but harvestable yields are low because of the need to maintain a dense cover by use of a very restricted grazing program."

"iWMG", "6e3", "Water table management is not a normal practice on these soils because of the lack of cultivation."

### **6s1 Map Unit LaD**

"aSOI", "6s1", "This map unit consists of strongly sloping, moderately well drained soils on side slopes of low ridges of the uplands. They have sandy surface and subsurface layers 40 to 80 inches thick and moderately permeable and moderately slowly permeable, loamy subsoil layers."

"bSAC", "6s1", "These soils have root zones thicker than 80 inches. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is only moderate. Rainfall is absorbed on protected areas and there is little runoff. The hazard of gully erosion is severe on unprotected areas."

"cH2O","6s1","In normal years these soils have a seasonal high water table at a depth of between 40 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","6s1","Due to steepness of slope , droughtiness, and the hazard of erosion, these soils are not suited to cultivated crops."

"eERO","6s1","If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR","6s1","Irrigation of high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion."

"hPAS","6s1","These soils are poorly suited to improved pastures. Deep rooting plants such as hybrid bermudagrass and improved bahiagrass are well adapted. They grow well and produce good ground cover where nutrient management is practiced, but grazing must be greatly restricted to maintain vigorous plants for adequate growth to maintain complete ground cover for soil protection. Nutrient management is required to maintain vigorous plants for acceptable yields."

"iWMG","6s1","Water table management is not normally practiced on these soils."

## **6s2 Map Units LaC(Lakeland), LaD(Lakeland), LdC**

"aSOI","6s2","This map unit consists of sloping to strongly sloping excessively drained soils on side slopes of the uplands. They have rapidly permeable sandy layers to depths of more than 80 inches."

"bSAC","6s2","These soils have a well aerated root zone more than 80 inches thick. Available water capacity averages very low in the root zone. Natural fertility is low and response to fertilization is low. Rainfall is absorbed on protected areas and there is little runoff. The hazard of sheet erosion is moderate on unprotected areas and the hazard of gully erosion is severe where runoff water is concentrated."

"cH2O","6s2","In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL","6s2","These soils are not suitable for cultivated crops because of droughtiness, steepness of slope, and susceptibility to gully erosion."

"eERO", "6s2", "If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR", "6s2", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "6s2", "These soils are moderately suited for pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted but yields are reduced by periodic droughts. Nutrient management is needed. Grazing should be controlled to permit plants to maintain vigor for highest yields."

"iWMG", "6s2", "Water table management is not normally practiced on these soils."

### **6s21 Map Units CwD3(Troup), EsD, LnD(Troup)**

"aSOI", "6s21", "This map unit consists of strongly sloping, well drained soils on side slopes of low ridges of the uplands. They have sandy surface and subsurface layers 40 to 80 inches thick and moderately permeable, loamy subsoil layers."

"bSAC", "6s21", "These soils have root zones thicker than 80 inches. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilizers is only moderate. Rainfall is absorbed on protected areas and there is little runoff. The hazard of gully erosion is severe on unprotected areas."

"ch2O", "6s21", "In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL", "6s21", "Due to steepness of slope, droughtiness, and the hazard of erosion, these soils are not suited to cultivated crops."

"eERO", "6s21", "If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR", "6s21", "Irrigation of high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion."

"hPAS", "6s21", "These soils are moderately suited for pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted but yields are reduced by periodic droughts. Nutrient management is needed. Grazing should be controlled to permit plants to maintain vigor for highest yields."

"iWMG", "6s21", "Water table management is not normally practiced on these soils."

### **6w3 Hydric phases of Map Units Ba, Bd, Pr(Pocomoke), Pt(Pocomoke), Ru**

"aSOI", "6w3", "This capability unit consists of nearly level, very poorly drained soils that occur in depressions. These soils are mineral soils."

"bSAC", "6w3", "The root zone is restricted by a water table that is at or above the surface during wet seasons. The internal drainage is slow and response to artificial drainage is poor. The available water capacity is medium. Permeability is rapid to moderately rapid in the surface layers and slow to very slow in the subsoils. Natural fertility is low to medium, and organic matter content is low."

"cH2O", "6w3", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also ponded frequently for long duration with water approximately 2 feet above the surface. Most often ponding occurs in the winter and spring, but it may occur during any wet season."

"dCUL", "6w3", "These soils are not suited to cultivated crops without extensive water table and ponding control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO", "6w3", "Erosion is not a management concern on crops produced on these hydric soils if they happen to be cultivated."

"fIRR", "6w3", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "6w3", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "6w3", "Because of the slow internal movement of water, and the usual lack of good outlets in areas where these soils occur, good water table management systems are difficult to establish and maintain. These systems normally require an extensive system of canals and ditches. A diking and/or pumping system for control of ponding water is also needed."

### **6w4 Hydric phases of Map Unit Sw(Rutlege)**

"aSOI", "6w4", "This capability unit consists of nearly level, very poorly drained soils that occur on flood plains. These soils are mineral soils."

"bSAC", "6w4", "The root zone is restricted by a water table that is at or above the surface during wet seasons. The internal drainage is slow and response to artificial drainage is poor. The available water capacity is medium. Permeability is rapid to moderately rapid in the surface layers and slow to very slow in the subsoils. Natural fertility is low to medium, and organic matter content is low."

"cH2O", "6w4", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also flooded frequently for long duration. Most often flooding occurs in the spring and summer, but it may occur during any wet season."

"dCUL", "6w4", "These soils are not suited to cultivated crops without extensive water table and flood control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO", "6w4", "Erosion is not a management concern on crops produced on these hydric soils if they happen to be cultivated."

"fIRR", "6w4", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "6w4", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "6w4", "Because of the slow internal movement of water through the subsoils, and usually the lack of good outlets in areas where these soils occur, good water table management systems are difficult to establish and maintain. These systems normally require an extensive system of canals and ditches. A diking and/or pumping system for control of flood waters is also needed."

### **7e1 Map Unit LnF(Nankin)**

"aSOI", "7e1", "This map unit consists of moderately steep to steep soils on side slopes of upland ridges. The soils have less than 20 inches of sandy or loamy surface layers over loamy or clayey subsoils. In places where protective cover has been removed, the soils have eroded severely and contain many rills and gullies. Vegetation often hides these rills and gullies."

"bSAC", "7e1", "The root zone of these soils is deep and well aerated. The available water capacity is moderate within the root zone and natural fertility is low to moderate. The hazard of erosion is very severe on unprotected areas."

"cH2O", "7e1", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "7e1", "These soils are too steep and erodible to be suited to cultivated crops."

"eERO", "7e1", "If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR", "7e1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7e1", "These soils are poorly suited to pastures due to steepness of the soil and the hazard of erosion."

"iWMG", "7e1", "Water table management is not a normal practice on these soils because of the lack of cultivation and an available water source."

#### **7s6 Map Unit LaF**

"aSOI", "7s6", "This map unit consists of excessively drained strongly sloping to steep, soils on side slopes of upland ridges. They have sandy layers to depths greater than 80 inches."

"bSAC", "7s6", "These soils have a loose, well aerated root zone to depths of more than 80 inches. Natural fertility is low and response to fertilizers is low. The available water capacity is very low. Rainfall is rapidly absorbed into the soil but runoff from unprotected areas during heavy rainfall is rapid. On these areas the gully erosion hazard is severe."

"cH2O", "7s6", "In normal years these soils do not have a seasonal high water table within 72 inches."

"dCUL", "7s6", "Due to extreme droughtiness and the hazard of erosion, these soils are not suited to cultivated crops."

"eERO", "7s6", "Due to the lack of these soils being cultivated, erosion control is not normally a management concern."

"fIRR", "7s6", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7s6", "Due to extreme droughtiness and the hazard of erosion, these soils are not suited to hay and pasture."

"iWMG", "7s6", "Water table management is not a normal practice on these soils because of the lack of cultivation."

### **7s9 Map Units EsE, LaF(Troup), LnF(Troup)**

"aSOI", "7s9", "This map unit consists of well drained to excessively drained nearly level to strongly sloping soils on low dunelike ridges near the coast and on low ridges and knolls in the flatwoods. They have sand layers 20 to 70 inches over loamy subsoils."

"bSAC", "7s9", "These soils have a deep root zone to depths of more than 80 inches. The available water capacity is low in the root zone. Natural fertility is very and response to fertilization is low. Rainfall is rapidly absorbed but moves rapidly through the soil and very little is retained. There is very severe hazard of sheet, rill and gully erosion."

"cH2O", "7s9", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "7s9", "These soils are too steep and erodible to be suited to cultivated crops."

"eERO", "7s9", "If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR", "7s9", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7s9", "These soils are poorly suited to pastures due to steepness of the soil and the hazard of erosion."

"iWMG", "7s9", "Water table management is not a normal practice on these soils because of the lack of cultivation and an available water source."

### **7w2 Hydric phases of Map Unit Sw(Pamlico part)**

"aSOI", "7w2", "This map unit consists of nearly level, very poorly drained organic soils in depressions and floodplains. These are hydric soils."

"bSAC", "7w2", "The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages high in the root zone. Natural fertility is high. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."



"cH2O", "7w2", "In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding and/or flooding. Only rarely is the water table below the surface for an extended period."

"dCUL", "7w2", "These soils are not suited to cultivated crops without extensive water table and flood control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO", "7w2", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7w2", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7w2", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG", "7w2", "Water table management is not a normal practice on these soils because of the lack of cultivation."

## **8e1 Map Units Bp, Gu**

"aSOI", "8e1", "This map unit consists of areas where soil materials have been removed by excavation or mining operations. Some of these areas fill with water periodically and other areas have geologic materials exposed."

"bSAC", "8e1", "Due to infertile exposed geologic soil material, these areas are not vegetated."

"cH2O", "8e1", "These soils have a highly variable water table."

"dCUL", "8e1", "Due to the infertile material, these soils are not suited to cultivated crops."

"eERO", "8e1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8e1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS","8e1","Due to the infertile material, these soils are not suited to hay and pasture."

"iWMG","8e1","Water table management is not a normal practice on these soils because of the lack of cultivation."

## **ECOLOGICAL COMMUNITIES**

kRNG - Rangeland (not developed, no significant application in the area served by this field office.)

IWLD - Wildlife

mWOD – Woodland

**Longleaf Pine-Turkey Oak Hills - Map Units CwD3\*, EsB, EsC, EsD, EsE, EtB, EtC, LaB, LaC, LaD, LaF, LdB, LdC, LkB, LkC**

("IWLD","04") "This ecological community is suited for deer and turkey, especially as escape cover. Many birds inhabit the area including warblers, towhees, flycatchers, scrub jays, and quail. Several varieties of native legumes furnish food (seeds) for the birds. Timber harvest and other disturbances increase wildlife food by increasing the amount and types of herbaceous plants and by sprout production."

("mWOD","04") "This community has a moderately high potential for commercial production of pulp and timber. These soils create moderate equipment limitations and seedling mortality problems. Sand pine and longleaf pine are the commercial species suited to planting."

**Mixed Hardwood And Pine - Map Units AnA, AnB, AnC, BfB, BnB, BnC, BoA, BoB, BoB2, BoC, BoC2, BwB, BwC, CaB, CaB2, CaC2, CtB3, CtC3, CuB, CuB2, CuC, CuC2, CwD3\*, DuB, EaB, EfA, EfB, EnA, EnB, EuB, EuC, FaB, FaB2, FaC2, GcA, GcB, GcC, GdA, GdB, GdC, KaB, KGB, KgC, KsB, KsC, LnD, LnF, Lu, LyA, LyB, LzA, LzB, MaB, MaB2, NoA, NoB, NoB2, NoC, NoC2, NrA, NrB, NrC, OkB, OkC, RcB, RdB, RdC, RsB, RsB2, RsC, RsC2, SC, Sf, ShB, ShB2, ShC, ShC2, Tfb, Tfb2, Tfc2**

("IWLD","05") "This community offers very good habitat for deer, turkey, squirrel, and many songbirds. Hardwood mast (acorns, nuts, fruits, buds, berries) furnish a good source of wildlife food. Mature hardwoods and snags provide good nesting sites for birds. Habitat is good for raccoons, opossums, bobwhite quail and dove, fair for reptiles, and poor for most amphibians."

("mWOD","05") "This community has a high potential productivity for commercial wood production. There are no serious management problems. Slash pine and loblolly pine are the commercial species suited to planting."

#### **North Florida Flatwoods - Map Units Bd, Lo, Pm\***

("IWLD","07") "The North Florida Flatwoods community is well suited for deer, quail and turkey. It is fair for squirrels and well suited for many songbirds, particularly warblers. It is also well suited for bobcat, skunks, opossums, and raccoons. It is poorly suited for dove."

("mWOD","07") "This community has a moderate potential productivity for commercial wood production. There are moderate equipment limitations and seedling mortality due to wet soil conditions. The commercial species suitable for planting is slash pine."

#### **Cypress Swamp - Map Units Ba\*, Gr\***

("IWLD","17") "This community is very important for wildlife refuge areas and as a turkey roosting area. It is well suited for waterfowl and wading birds. Aquatic animals may be found in large numbers. The permanent residents of cypress heads are relatively few, but much of the wildlife of the flatwoods is dependant on these ponds for breeding purposes."

("mWOD","17") "Commercial wood production is not recommended. Extensive drainage would be required, thereby destroying this community."

#### **Bottom Land Hardwoods - Map Units Al, Pm\***

("IWLD","20") "This community host a large variety of wildlife. It is well suited for squirrel, deer, and birds such as chickadees, titmice, flycatchers, owls, towhee, turkey, vireos, warbler, cedar waxwing, woodpeckers and wren. The various species of hardwood vegetation provide good food and cover for these species."

("mWOD","20") "This community has a high potential productivity for commercial woodland production on areas with adequate surface drainage. There are severe equipment limitations and seedling mortality due to the poorly to very poorly drained soil conditions. Slash and loblolly pine are suitable for planting in areas with adequate surface drainage. Most areas are better suited to natural regeneration."

### **Swamp Hardwoods - Map Units Ba\*, Gr\*, Pr, Pt, Ra, Ru\*, Sw\***

("IWLD","21") "This community hosts a large variety of wildlife. It is especially well suited for waterfowl, reptiles, amphibians, and mammals. Animals found in this community must withstand the flooding which occurs periodically. Gray squirrel, mink, raccoon, and river otter are the most commonly found mammals. Many birds inhabit this area including chickadees, titmice, yellow-billed cuckoo, wood duck, limpkin, flycatchers, owls, turkey, woodcock, hooded warbler, cedar waxwing, woodpeckers, and wren. The various species of hardwood vegetation provide good food and cover for these species."

("mWOD","21") "This Swamp Hardwoods community is generally not used for commercial woodland production except for limited harvest of hardwoods. However, this community does have a high potential for commercial woodland production on areas with adequate surface drainage. There are severe equipment limitations and seedling mortality due to the poorly to very poorly drained soil conditions. Slash pine is suitable for planting in areas with adequate surface drainage."

### **Shrub Bogs-Bay Swamps - Map Units Ru\*, Sw\***

("IWLD","22") "This ecological community's primary value to game animals is the escape cover furnished to deer, turkey, and quail by the thick growth. This cover is also good habitat for a variety of frogs, salamanders, crayfish, predatory snakes, and raccoon."

("mWOD","22") "This ecological community is generally not used for commercial woodland production except for limited harvest of hardwoods. However, this community does have a high to moderate potential for commercial woodland production on areas with adequate surface drainage. There are severe equipment limitations and seedling mortality due to the poorly to very poorly drained soil conditions. Slash pine is suitable for planting in areas with adequate surface drainage."

\* - These Map Units have more than one type of Ecological Community.

## **URBAN USES**

oURB - Urban Use Statement

### **Map Units Al, Ba, Gr, Lu, Pr, Pt, Ru, and Sw**

"AREA 1 oURB GROUP","A101","Soils in this group have severe limitations for urban uses. Seasonal flooding or ponding is the primary limiting factor. Additionally, other severely limiting factors probably will be present in these soils."

#### **Map Units Bd, KaB, KgB, KsB, Lo, LyA, LzA, Pm, Ra, and Sf**

"AREA 1 oURB GROUP","A102","Soils in this group have severe limitations for most urban uses. A seasonal high water table saturating these soils at or near the surface is the primary limiting factor. Additionally, other severely limiting factors may be present in these soils."

#### **Map Units AnA, AnB, AnC, DuB, EaB, EfA, EfB, OkB, and OkC**

"AREA 1 oURB GROUP","A103","Soils in this group have moderate to severe limitations for most urban uses. Limitations resulting from the properties of clayey layers within these soils dominate this group. Additionally, other limiting factors may be present in these soils."

#### **Map Units BoA, BoB, BoB2, BoC, BoC2, CaB, CaB2, CaC2, GdA, GdB, GdC, LyB, MaB, MaB2, NoA, NoB, NoB2, NoC, NoC2, Sc, Tfb, Tfb2, and Tfc2**

"AREA 1 oURB GROUP","A104","Soils in this group have moderate limitations for many urban uses. Soil properties related to texture and wetness primarily affect this group. Soils of this group may have severe limitations for a specific urban use."

#### **Map Units BfB, BnB, BnC, BwB, BwC, CtB3, CtC3, CuB, CuB2, CuC, CuC2, EnA, EnB, EsB, EsC, EtB, EtC, EuB, EuC, FaB, FaB2, FaC2, GcA, GcB, GcC, KgC, KsC, LaB, LaC, LdC, LkB, LkC, LzB, NrA, NrB, NrC, RcB, RdB, RdC, RsB, RsB2, RsC, RsC2, ShB, ShB2, ShC, and ShC2**

"AREA 1 oURB GROUP","A105","Soils in this group have slight limitations for many urban uses. Soils of this group may have moderate or even severe limitations for a specific urban use. Soil properties related to texture, slope, or wetness may affect a specific urban use."

#### **Map Units EsE, Gu, LaF, LnF**

"AREA 1 oURB GROUP","A106","Soils in this group have severe limitations for urban uses. Moderately steep to very steep slopes is the primary limiting factor. Additionally, other severely limiting factors may be present in these soils such as texture or shallow depth to rock."

## **Map Units CwD3, EsD, LaD, LnD**

"AREA 1 oURB GROUP","A107","Soils in this group have moderate limitations for urban uses. Slope is the primary limiting factor. Additionally, other moderately limiting factors may be present in these soils such as texture or shallow depth to rock."

## **WATER QUALITY: PESTICIDE AND NUTRIENT MANAGEMENT**

sWQ - Water Quality Statement

tPES - Pesticide Management Statement

uNUT - Nutrient Management Statement

### **Map Units - BwB, BwC, NrA, NrB, NrC**

"sWQ","01","These soils have a low potential for pesticide leaching to groundwater and a low potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES","01","The Florida Pest Control Guide contains a listing of pesticides suitable for each type of pest and is available from the Cooperative Extension Service. Read and follow pesticide labels."

"uNUT","01","A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients should be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

### **Map Units - BfB, BnB, BnC, CwD3 (Troup part), EnA, EnB, EsB, EsC, EsD, EsE, EtB, EtC, EuB, EuC, GcA, GcB, GcC, KgC, KsC, LaB, LaC, LaD, LdB, LdC, LkB, LkC, LnD (Troup part), LzB, RdB, RdC**

"sWQ","02","These soils have a medium or high potential for pesticide leaching to the groundwater and a low potential for pesticide runoff from the field(s) to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES","02","The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value and Health Advisory Level (HAL or HALEQ) value. Read and follow pesticide labels."

"uNUT", "02", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

**Map Units - Al, Bp, FaB, FaB2, FaC2, GdA, GdB, Gu, KaB, KGB, KsB, LaF, LnF (Troup part), Lo, Lu, LyA, LyB, LzA, Pm, Pr, Pt, Ra, RcB, RsB, RsB2, RsC, RsC2, Ru, Sc, Sf, Sw (Rutlege part)**

"sWQ", "03", "These soils have a medium or high potential for pesticide leaching to groundwater and a medium to high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "03", "The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) and Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value, RRPI value, Health Advisory Level (HAL or HALEQ) value, and Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "03", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

**Map Units AnA, AnB, AnC, Ba, Bd, BoA, BoB, BoB2, BoC, BoC2, CaB, CaB2, CaC2, CtB3, CtC3, CuB, CuB2, CuC, CuC2, CwD3 (Nankin part), DuB, EaB, EfA, EfB, GdC, Gr, LnD (Nankin part), LnF (Nankin part), MaB, MaB2, NoA, NoB, NoB2, NoC, NoC2, OkB, OkC, ShB, ShB2, ShC, ShC2, Sw (Pelham & Pamlico parts), TfB, TfB2, TfC2**

"sWQ", "04", "These soils have a low potential for pesticide leaching to groundwater and a medium or high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "04", "The Florida Pest Control Guide from the Cooperative Extension Service contains a listing of pesticides suited to each pest. This list also contains Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RRPI value and a larger Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "04", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown, or according to the producer's goals, whichever is lower."